

Do we really need a fisheries management “revolution?”

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*The Biggest Lie is that fishermen are inherently incapable of sustainably managing the fisheries they participate in. The sole basis of this belief is The Tragedy of the Commons, an article published in the journal Science by an ecologist, Garrett Hardin, in 1968. Hardin's article describes the dilemma of hypothetical herders sharing a hypothetical plot of land in medieval Europe. It's been used and is still being used as proof positive that fishermen are incapable of rationally harvesting fish that “belong to everybody.” Hardin is reputed to have later said that his article might better have been titled “The Tragedy of the Unregulated Commons,” which has no bearing at all on today's over-regulated fisheries. This obvious fact is understandably ignored by the foundation-funded anti-fishing activists in their so far successful campaign to marginalize fishermen in the management process. (Note that Nobel Laureate, Elinor Ostrom, convincingly – at least to the Nobel selection committee - argues that Hardin's “tragedy,” though applicable in limited situations, suffers from over-application.) From **It's time to stop Magnuson from being a weapon against fishing communities** at <http://www.fishnet-usa.com/All%20Stolpe%20Columns.htm#Magnuson%20Weapon>.*

Jane Lubchenco, head of the National Oceanic and Atmospheric Administration, the parent agency of the National Marine Fisheries Service, is in the process of trying to “privatize” as many U.S. fisheries as possible. This form of privatization, also termed “catch shares,” grants exclusive harvesting rights for the fish in our Exclusive Economic Zone to private individuals. Of the hundreds of individual fisheries managed by the federal government, at this point only 16 are managed by a form of catch shares, but if Ms. Lubchenco has her way, this list will include as many more as she and her ENGO cronies can add.

If she is successful in this, there is no way to look it as anything less than a revolution in how we manage our fisheries, in how our fisheries resources are caught, in who catches them, and in how they get to market.

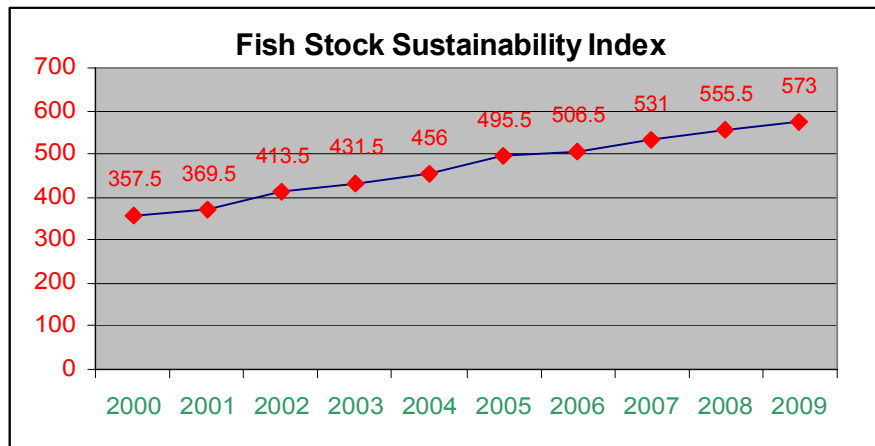
Is this a revolution that we really need?

From the National Marine Fisheries Service 2009 Report to Congress - The status of U.S. fisheries (http://www.nmfs.noaa.gov/sfa/statusoffisheries/sos_full28_press.pdf):

NMFS measures progress towards the sustainability of our nation's fisheries through the Fish Stock Sustainability Index (FSSI). The FSSI measures the performance of 230 key stocks and increases as additional assessments are conducted, overfishing is ended and stocks rebuild to the level that provides maximum sustainable yield. This index increased from 357.5 in 2000 to 573 in 2009, see Figure 1 below. The 60% increase in the FSSI in 9 years represents significant progress in improving our knowledge of stock status and sustainably managing our fisheries. More information about the FSSI can be found at <http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>.

For the third quarter of 2010 the FSSI was 582.5.

Each of the 230 fish stocks are rated individually to make up this composite measure. The maximum rating for each stock is 4.0. Therefore a “perfect” FSSI would be 920. However, 25% of the FSSI for each stock is based upon whether the “overfished” and “overfishing” status for that stock is known. For 51 stocks, the “overfished” status is unknown. For 38 stocks, the “overfishing” status is not known. If it weren't for this lack of knowledge - a lack for which NOAA/NMFS is entirely responsible - the composite FSSI would be at least 637. If the people at NOAA/NMFS knew the status of all 230 stocks, and if those stocks presently with an “unknown” status were all found to be neither “overfished” nor subject to “overfishing,” the composite FSSI would be 726.



Clearly our fisheries are improving steadily, and have been doing so for more than a decade. Just as clearly, they might well be in better overall shape than NOAA/NMFS is willing to admit. In fact, one of the most common observations of commercial, recreational and party/charter fishermen is that there are more fish now than there have been for the last thirty years. An equally common question is that, with so many more fish available, why is our ability to catch them being increasingly reduced by the federal government?

This increase in NMFS' arbitrary index of "sustainability" is even more impressive when you take into account the fact that it allows for neither natural nor anthropogenic environmental shifts. While the warming of our coastal and inshore waters is causing some of our fish stocks to alter their migratory habits, the surveys that are the foundation of all of our stock assessments aren't designed to follow the fish. Rather, they depend on sampling at the same stations that have been sampled for decades. While it would be extremely difficult to quantify, it's impossible to imagine that some stocks aren't classified as "overfished" only because they have changed their natural range and the areas sampled in the surveys are cast in concrete.

Reinforcing the NMFS Fish Stock Sustainability Index is the fact that many fish stocks are at or are approaching record levels of abundance. In the Mid-Atlantic region, for example, the biomasses of three of the most important species sought by recreational and commercial fishermen are at or approaching levels greater than any measured in the past. These are scup (Stock Assessment for Scup 2010, M. Terceiro, Northeast Fisheries Science Center, Table 35, Pg 55 - <http://www.nefsc.noaa.gov/publications/crd/crd1016/crd1016.pdf>), summer flounder (Summer Flounder Assessment Summary for 2010, Southern Demersal Working Group, Figure 4, Pg 11 - http://www.mafmc.org/fmp/current/SF-SC-BSB/Summer%20flounder/F2010_Assess_Summary.pdf), and black sea bass (Black Sea Bass Assessment Summary for 2010, Northeast Fisheries Science Center, Figure 3, Pg 6 - http://www.mafmc.org/fmp/current/SF-SC-BSB/BSB/BSB2010_Assess_Summary.pdf).

In fact, of all of the species managed by the Mid-Atlantic Council, only one (butterfish) is listed as overfished.

But what of New England, supposedly ground zero for ineffectual fisheries management and rapacious fishermen?

The sea scallop fishery, the most valuable commercial fishery in the U.S., is shared by the Mid-Atlantic and New England regions, as is the monkfish fishery, the most valuable finfish fishery on the East Coast. Neither is classified as overfished and overfishing isn't occurring in either. There are definitely no crises associated with these fisheries, two of our most valuable.

The groundfish fishery, one of the earliest targets of the "catch share revolution," and also one of our oldest and most historically important fisheries, is made up of a complex of 16 overlapping and intermingled stocks. I wrote in August, 2009 in **Chronic Underfishing - The Real New England Groundfish Crisis** (http://www.fishnet-usa.com/chronic_underfishing.htm) "the total target TAC for the twelve groundfish species was almost 170 thousand

metric tons. The total catch was less than 43 thousand tons. This was only 25% of what the fishermen could have caught without damaging the stocks. Assuming a conservative value of a dollar a pound for those fish (from 2000 to 2007, haddock returned an average of \$1.20 a pound to the fishermen), they didn't catch 280 million dollars worth of haddock, cod, flounder, etc. that they were allowed to catch. If every dollar's worth of fish landed generates four dollar's worth of total economic activity, that's over a billion dollars lost to the New England economy, and lost primarily to New England's struggling fishing communities." A year and a half later, seven months into the first year of catch share management in the groundfish fishery, only 21% of the groundfish Annual Catch Limit (ACL) has been caught. The groundfish fleet appears to be on the way to taking most of the ACLs of the least plentiful stocks, with 47% caught, but only 15% of the four most numerous stocks (Georges Bank haddock, Georges Bank haddock East, pollock and redfish).

The groundfish stocks that were severely underfished pre-catch shares are still severely underfished, and NOAA/NMFS doesn't seem to be doing very much about it. If the four most plentiful stocks were being fished at the same level as the least plentiful stocks, a large part of the groundfish fleet that is now tied up at the dock (estimated at up to two thirds of the total groundfish vessels) could be at work. Instead, every indication is that 50,000 metric tons of haddock, pollock and redfish - fish that could be harvested sustainably - will be left in the ocean. This represents approximately half of the Annual Catch Limit for the groundfish fishery.

The only crises in the New England groundfish fishery are those caused by a management regime that has put an estimated two-thirds of the fleet out of work and a federal fisheries bureaucracy that is willing to support that management regime while doing nothing substantive to help the fishermen they have forced out of the fishery to catch the huge biomass of available fish.

“Overfishing” is fast becoming a part of the past

In the ever-diminishing group of fisheries that are still considered to be overfished, changing or deteriorated environmental conditions are such that in all probability the majority of them will not be considered fully recovered until their biological reference points are modified to reflect the changed or deteriorated conditions. Unfortunately, “underfishing” is still with us, and it appears as if NOAA/NMFS isn't particularly anxious to anything about it.

(I would be remiss here if I didn't point out how inadequate science also plays a role in the supposed deteriorated condition of some of our supposedly overfished stocks. The most recent - and I hope the most egregious, but only time will tell - example of this was the NMFS determination early this past summer that Atlantic pollock wasn't overfished [as it was previously believed to be] and the pollock Total Allowable Catch was increased by a factor of five. This decision was based on an updated assessment of the stock [see <http://www.nefsc.noaa.gov/publications/crd/crd1017/pdfs/ctext.pdf>] utilizing a more appropriate computer model, not new or better survey data. There's no reason not to believe that the wrong model or inadequate data or some other technical oversight is just as responsible for the supposed status of every other “overfished:” stock.

I'd be equally remiss if I didn't also point out that a tremendous amount of political pressure was brought to bear on NOAA and Ms. Lubchenco by the New England Congressional Delegation and state and local officials to fix the ongoing groundfish debacle. It would be hard to imagine that this pressure wasn't in part responsible for the federal fisheries managers' discovery that the model they had been using up until then for pollock wasn't doing the job.)

I've written before on Ms. Lubchenco's decision to redirect millions of NMFS research dollars into pushing her decision to manage as many fisheries as possible with catch shares (<http://www.fishnet-usa.com/All%20Stolpe%20Columns.htm#Catch%20shares%20choo%20choo>). Thus, it's not surprising that the idea that a beefed-up research effort could be responsible for getting even more stocks off the overfished list hasn't really caught the attention of the higher-ups at NOAA/NMFS - or perhaps it has. Just think how much more difficult it would be to sell Ms. Lubchenco's idea that a revolution in how we manage our fisheries was needed if we didn't have all of those supposedly “overfished” stocks for her to use as examples of how bad we're doing without catch shares. How much could the harvest levels in our other fisheries be increased if the NOAA/NMFS scientists reviewed the underlying data, assumptions and models with as much zeal as they did in the pollock fishery?

But apparently that isn't what it's about at NOAA. It's hard to justify the need for a revolution in fisheries management if things are going along well without one, and allowing fishermen to catch more fish and putting out of work fishermen back to work would be admissions that things are going well. With the leadership we now have at NOAA/NMFS, don't hold your breath until that happens. A manufactured fishing crisis is what got them there, and a manufactured fishing crisis is what's been keeping them there.

And finally, is what is termed overfishing necessarily catastrophic?

The scientists at NOAA/NMFS aren't particularly good at estimating the size of fish stocks. In fact, as was just demonstrated with Atlantic pollock, they can be abysmally bad. To make up for this, they have adopted what is called the precautionary principal, which I have discussed previously. The bottom line is that this forces managers to manage as if stocks were at the lowest point of their estimated size. Hence, with a stock like monkfish, which is classified as data poor, the landings are constrained to somewhere between a half and a third of what they might actually be because not enough is known about the health of their population.

This conservatism in monkfish management could be costing fishing communities from North Carolina to Maine upwards of \$100 million a year.

So what would happen if the allowable catch was doubled (with the agreement of the fishermen), if it's landed value went from \$14 million a year to \$28 million a year? First off, and using a conservative 4:1 multiplier to determine total economic activity generated by each dollar in landings, at least \$64 million would be pumped into the coastal economy. Of course, after the increase in landings the stock would be surveyed (at a cost of perhaps a million dollars). If it was found to be below the desired level, landings would be reduced in subsequent years until it was back to that level. If it wasn't, the increased landings would continue.

In either case, it's not much of a big deal. We know that at the current level of landings the stock is increasing. The fishermen would be taking a calculated risk, but that's what fishermen have been doing for generations, and successful fishermen are good at it. That's what makes them successful.

Were the monkfish stock allowed to be "overfished" for a year, there wouldn't be any negative effects on anyone outside of the fishery, and those would be minimal, short-lived and accepted by the people dependent on the fishery. No catastrophe, no devastation, no crisis. But it's not allowed, and even making the suggestion will have the same effect on the anti-fishing activists, including those who have infiltrated NOAA/NMFS and who are supposed to be supporting our fishermen, as stepping on their hill will have on a colony of fire ants. It's not about the fish and it's not about the fishermen.